

REMARKS

This Amendment is submitted as a full and complete response to the outstanding Official Office Action dated November 12, 2003. By this Amendment, applicants have cancelled Claims 1-9, 15, and 17-20 without prejudice, have amended Claims 10 and 16, and have added new Claims 21-30. Accordingly, it is now believed that amended independent Claim 10 and new independent Claims 21 and 29 and the respective remaining claims dependent thereon have been placed in condition for allowance.

In this Office Action, it is noted that the Examiner has rejected Claims 1 through 20 under 35 U.S.C. 102 as being allegedly anticipated by Sun et al., U.S. Patent No. 6,285,754. The Examiner has set forth in detail his reasons for these rejections on pages 2-7 of this Office Action. However, applicants respectfully disagree with the Examiner in these contentions.

Nevertheless, and in an effort to better distinguish the instant invention over the cited prior art, applicants have now cancelled Claims 1-9, 15, and 17-20 and have amended

extensively independent Claim 10 and Claim 16. Further, applicants have added new Claims 21 through 30. It is submitted that none of the prior art references can, singly or in any combination be deemed to anticipate or make obvious all of the new and novel features as now recited with particularity in amended independent Claims 10 and new Claims 21-30.

In particular, applicants have amended independent Claim 10 to include, *inter alia*, limitations relating to DSL terminals electrically coupled to the first and second input terminals. As is well established, an anticipatory reference must teach (directly or inherently) each and every limitation of the claimed invention. The '754 Sun et al. patent in no way teaches or even suggests inclusion of the DSL terminals within the circuit; see Figs. 1, 2, and 3 of Sun reference which teach either (i) a physically separated splitter device (130) or (ii) a "splitterless" device wherein splitting is accomplished via the telephone network (136 in Fig. 3 of Sun).

In contrast, Applicants invention of Claim 10 as amended herein include DSL terminals within the circuit and first through modular jacks, thereby significantly simplifying

installation. For example, the user of Applicants' invention can merely plug the circuit line-side plug (first modular jack) into one telephone (e.g., wall) jack nearby their telephone and computer, and then plug the phone into the second modular jack and the computer into the third modular jack. Under Sun reference, connection of the computer to the incoming line occurs at a separate physical location, thereby making connection more inconvenient and/or potentially requiring additional wiring. See, e.g., Figs. 1 and 3 of Sun, wherein the filters 150 are clearly physically disposed at different locations from the splitter.

Additionally, Applicant has herein further amended Claim 10 to include the limitation "asymmetric" in order to further distinguish over Sun. Note specifically Col. 3, lines 1-7 of Sun, wherein it is stated that:

"The filter topology is substantially symmetric in that the topology features reversible plug-in capability so that either end of the filter may be coupled to the home telephone wiring network without interfering with the filtering function of the filter and without shorting, or shunting, the higher frequency signals, such as ADSL signals, on the home telephone wiring network." {Emphasis added}

See also the Abstract of Sun, and other various portions of the specification describing this symmetry.

Hence, applicants' recitation of asymmetry in Claim 10 as amended further distinguishes over Sun; as will be readily appreciated, Applicants' recited topology cannot be reversed as in Sun's topology, since (i) applicants' claimed invention has asymmetric DSL terminals, and (ii) Applicants' claimed invention has a (second and third) capacitor structure not particularly adapted for reversal.

Applicant also notes in passing that the language "either end" in the cited passage above further substantiates applicants' prior assertions that Sun did not contemplate or teach co-location of the DSL splitter; the "two-ended" device referenced by Sun refers exclusively to a device having line and equipment ports only (i.e., if it had a DSL port, it would have a "third end" and would not be reversible). Accordingly, Applicant also submits that Sun teaches away from combination with any reference which might teach co-located DSL terminals, in that a core feature of Sun's invention (symmetry and reversibility) would be completely frustrated by such combination.

Further, applicants wish to point out to the Examiner that the interwinding capacitance of the coupled inductors 402 and 404 in the Sun reference will lower the shunting of the input impedance in the upper DSL band, thereby adding loss to the DSL signal and reducing its data rate. On the other hand, the present invention provides a high impedance throughout the DSL band.

Based on the foregoing, applicant respectfully submit that Claim 10 is both novel and non-obvious over the art of record. Accordingly, since Claims 11-14 and 16 depend therefrom these latter claims are also in condition for allowance. Furthermore, applicants have added new Claims 21-30, including Claim 21 directed to a multi-line variant of the invention corresponding generally to Figure 2 of this application. Applicants submit that these new Claims likewise clearly distinguish over the prior art of record, including the Bingel patent and the two Binder references.

In view of the above discussion and foregoing amendments advanced to the claims, it is now believed that amended independent Claim 10 and new independent Claims 21 and 29 and



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the respective remaining claims dependent thereon have been placed in condition for allowance. Therefore, a formal Notice of Allowance is believed to be in order and the same is earnestly solicited.

In the event the Examiner is of the opinion that the prosecution of this application may be expedited by direct contact with applicants' attorney, he is requested to call Davis Chin at (815)806-8477, Frankfort, Illinois.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

Feb. 25, 2004 (Date).

Davis Chin

Name of Applicant, Assignee,
or Registered Representative

Davis Chin

Signature